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ABSTRACT OF THE DISCLOSURE

A technique for controlling a switching circuit, such as a relay, includes one or more sensing circuits that generate signals based upon the presence of an actuating object and upon a randomly applied strobe signal. The generated signals are sampled and are used as a basis for determining the state of an output signal. The sensing circuit may generate the signals based upon capacitive coupling with the actuating object. The randomization of the sampling provides enhanced immunity to periodic or cyclic noise. Where more than one sensing circuit is included, the output of the circuits may be considered together for determining the state of the output signal, such as based upon predetermined ranges of signal levels. Signals of the sensing circuit may be sampled in the absence of the strobe to provide an indication of the relative noise level. If the noise level is determined to be elevated, the output signal may not change states.

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